

NEW SCENE

MICRO STUDIO SERIES



A NEW STYLE IN EFFECT MACHINES

Micro Studio Series

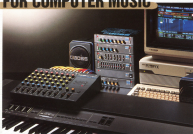
Boss believes that one of the most important requirements for superior effect machines is user flexibility in all aspects.

The Micro Studio Series is a no-compromise solution to fulfill that most important of requirements. Compactly designed in a 1/2 rack size to make the most of flexibility and allow for a variety of settings, the units have the kind of specifications that easily meet professional recording studio standards, as well as incorporating full-range functions to ensure the creation of numerous sound effects. The flexibility these units possess presents the player with a much greater potential for the creation of great sounds. The Micro Studio Series—letting you put together a new music scene.

FOR GUITAR



FOR COMPUTER MUSIC



FOR BASS



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NEW DIMENSIONS

The new potential of effect machines is realized in a compact size of 218(W) x 44(H)mm.

The Micro Studio Series are compactly sized, taking up exactly 1/2 of a standard rack-mounting space. Even with such compact dimensions however, no sacrifices were made in terms of performance or number of functions. In fact, the Micro Studio Series' outstanding specifications and functions are fully equal to most full-sized effect machines. Boss' original new functions filled with creative ideas are found in every unit, opening up a tremendous variety of sound creations. Their 1/2 rack size design coupled with true cost-effective performance, guarantees nearly a doubling of the potential of creative effects, using up the same space at the same cost of a single conventional effect unit.

The lightweight design makes carrying these units onstage or into studios extra easy. Use an PCB-4 carrying box for enhanced portability and to speed up setting. Establishing new standards with compact designs and superior performances, the Micro Studio Series brings about a whole new scene in sound creation.



NEW SPECIFICATIONS

The new creativity inherent in effect machines is brought about by excellent specifications which eliminate all compromises.

Recent advances in electronics have been rapidly improving the quality of P.A. systems, recording studio equipment, as well as instruments. Designed to meet such current trends, every unit of the Micro Studio Series is built to the highest standards of quality. Their basic performance and functions have also been engineered to conform to the highest possible levels, in keeping with Boss' pursuit of excellence. The RCE-10 is a 100% digital chorus with a flat frequency response all the way up to 15kHz. It also eliminates all wavering to produce chorus sounds that are remarkably clear. With its 12-bit A/D conversion and analog logarithm compression, the RRV-10 is capable of outstanding sound quality fully comparable with that produced by the 16-bit linear A/D conversion employed in advanced units of much greater cost. There's also enough flexibility built into this series to suit any playing style, and with all kinds of instruments and equipment, as is evident with the array of jacks available, including phone and RCA (pin) input/output jacks. Their superior performance and flexibility set new standards in the signal-processing world.



RRV-10 DIGITAL REVERB

Nine-Mode Digital Reverb Expands Creative Potential.

A built-in new DSP (Digital Signal Processing) LSI allows the RRV-10 Digital Reverb to attain a high quality sound that can be directly compared to those of much more costly, advanced effect units. Equipped with nine reverb modes including Room 1/2, Hall 1/2, Plate 1/2, Multi-Tapped Delay 1/2 and Gate modes, the RRV-10 provides a wide array of reverb effects to suit any sound requirement. Reverb effects range from the sound of large halls to small clubs, all the way to the gated reverb so much a part of the very latest drum sounds. In each mode, the HF damping and pre-delay time settings, so hard to set conventionally, are automatically adjusted, allowing any player to enjoy his ideal sound—and with easy settings. The 0.2—10 sec. adjustable reverb time has a continuously variable control to assure precise sound simulation. Along with the addition of a pre-equalizer to tailor the tone color as desired, Stereo Outputs are incorporated too.

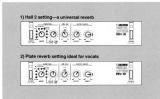
CONTROLS

- **MODE:** Selects desired reverb mode from a total of nine modes—two Room, two Hall, two Plate, and two Multi-Tapped Delay modes to enable the creation of special delay effects and reverse reverb, as well as a Gate mode.
- **DECAY/GATE TIME:** Controls the reverb time and gate time. Precise setting is ensured with the continuously variable control.
- **PRE-EQ:** For determining the reverb's tonal color. Clockwise rotation cuts low frequencies and boosts highs for bright sound; turn the control counterclockwise to cut highs for a warmer, mellower sound.
- **OUTPUT MIXER:** To determine the output volume level of the processed sound in relation to the direct sound. The mix ratio can be set as desired.



POINT OF PERFORMANCE

With nine different modes, the RRV-10 gives you practically unlimited reverb effect possibilities. The key to using the RRV-10 in the most effective manner is simple—just try to make effects sound as natural as possible. The best effect is the kind that is so soft you notice the effect only after it's been turned off! But even when the RRV-10 is set for a pretty strong reverb, keeping the TONE control at a slightly low setting is one way of getting a natural sound. Fig. 1 is a setting in the Hall 2 mode for creating reverb effects similar to those of a large hall more than 30m long, but in a most natural-sounding way. It's pretty much an ideal setting for any kind of instrument. Fig. 2 shows a setting that achieves the sound of the professional-quality plate reverb used in



many studios. It is the most appropriate setting for vocals. The RRV-10 also has a Multi-Tapped Delay mode that produces delay sound from the right and left speakers alternately

as well as reverse reverb effects. Why not unleash your creative energy and experiment with various settings?



A Uniquely
RRV-10 Effect

Excessive reverb can create some startlingly different sounds. Gated reverb is usually only used with rhythm machines, but the RRV-10 is very effective for guitar solos and vocals. Even if really deep reverb is used, the tailend cuts off sharply. The result is a rich, doubling-like effect that's ultra clear. A heavily distorted guitar sounds the best with this specific effect.



SPECIFICATIONS: • Input Level/Output Impedance: - 100mV/1kΩ • 100mV/1kΩ • Output Level/Output Impedance: - 300mV/2kΩ • 100mV/2kΩ • Output Load Impedance: Over 10kΩ • Frequency Response: 10-Hz to 20kHz • [J] 0dB (Direct), 30Hz to 10kHz • [J] 0dB (Effect) • Sampling Rate: 31.25kHz • A/D-D/A Conversion System: 12-bit converter plus analog logarithmic compression • Residual Noise: - 1000mV or less (RMS, A, Load switch at -20dB) • Controls: Decay/Gate Time, Pre-Equalizer, Effect Level, Direct Level • Jacks: Input (Phone, Pin), Output A (Phone, Pin), Output B (Phone, Pin), Effect Remote (Out/On) • Power Source: 9V DC by PS4 series AC Adaptor or RRV-7 Power Supply • Dimensions: 215(W) × 105(D) × 44(H)mm (8 1/8" W × 4 1/8" D × 1 3/4" H) • Weight: 500 g (2 lb.)

RCE-10 DIGITAL CHORUS ENSEMBLE

100% Digital Chorus with Two Independent Chorus Circuits for Exceptionally Clear Sound.

With a newly-developed LSI, the RCE-10 incorporates digital technology fully—even in the modulation circuit. This 12-bit high-performance circuit features superb frequency response—flat right up to 15kHz. The RCE-10's digital modulation circuit makes it possible for the modulation of the two independent chorus circuits to be perfectly in-sync. Compared to analog modulation chorus circuitry, the RCE-10 has the advantages of minimizing any wavering of the sound and delivers ideal chorus effects—a surprisingly spacious chorus sound, but one that still preserves the sound at its normal imaging position. Positively new sounds and appealing sounds can be quickly created, ranging from rich chorus to dimension-like effects, but all with perfect clarity. A Pre-Delay Time control makes it simple to double chorus effects as when some chorus is added right after a short delay.

CONTROLS

- **PRE DELAY:** This control adjusts the amount of time after input before the chorus effect is applied to the signal. Rotate if further clockwise to increase the pre-delay time. Doubling chorus effects are easy to produce, giving you an effect similar to when chorus is added after a short delay.
- **RATE:** Sets chorus speed. Clockwise rotation speeds up tremolo, and counterclockwise rotation slows it down.
- **DEPTH:** Adjusts depth of chorus. Rotating the control clockwise increases chorus depth, and vice versa for a shallower chorus.
- **EQ:** The Effect Equalizer control takes the tonal color of the chorus effect. As it is turned clockwise, the more the low frequencies are cut and high frequencies emphasized. Turn counterclockwise for a warmer and milder chorus sound with highs rolled off.
- **LEVEL:** Determines the level of processed sound in relation to the direct sound. Used to adjust any difference in level between effect on and off.



POINT OF PERFORMANCE

Because it has two independent chorus circuits, the RCE-10 can add natural spaciousness to the sound. The DEPTH control set at a deeper setting (as shown in Fig. 1) is recommended for chorus effects that suit vocal or bass sounds with relatively large pitch fluctuations. In addition, for these sounds with pitch fluctuation, chorus effects can be created simply by increasing the PRE DELAY setting without applying any modulation. For piano or other sound sources with minimal pitch fluctuations, set the DEPTH shallower and RATE slower (Fig. 2). A major point of sound creation with the RCE-10 is to use EFFECT EQUALIZER effectively. Turning this control clockwise

1) Deeper chorus with DEPTH set higher.



2) Shallower chorus setting ideal for piano.



emphasizes the highs for dimension-like chorus effects. Shallower chorus effects can be

aid by rotating the EQ control counterclockwise.



A Uniquely
RCE-10 Effect

For natural chorus effects, RATE should normally be set slower so that modulation synchronization will not be so obvious. But try increasing RATE sharply here. This creates an unusual sound similar to a speaker rotating at a high speed (snake effect). It's an especially effective setting when simulating a Hammond-like organ sound with a polyphonic synthesizer.



SPECIFICATIONS • Input Level/Line Impedance: -10dBm(1M Ω) • -10dBm(2k Ω) • Output Level/Output Impedance: -10dBm(2k Ω) • -10dBm(2k Ω) • Output Load Impedance: Over 1k Ω • Frequency Response: 20Hz to 20kHz $\pm$ 3dB (Effect) • Sampling Rate: 30kHz • Controls: Pre-Delay Time, Modulation Rate, Modulation Depth, Effect Equalizer, Effect Level • Jacks: Input/Phone, Pre, Output A/Mono/Phone, Post, Output B/Phone, Post, Effect Return, AC Adapter In, Out • Power Source: 9V DC by PIA series AC Adapter or 9V6-1 Power Supply • Dimensions: 21.8(5) $\times$ 148(3) $\times$ 44(3)mm (8.6(1) $\times$ 1.8(1) $\times$ 1.7(1) • Weight: 500 g (2 lb.)

RDD-20 DIGITAL DELAY

Studio Quality Digital Delay For the Ultimate Refinement of Basic Performances.

Achieving true recording studio-quality sound, the RDD-20 digital delay was specially developed to realize the ultimate in basic performances. At the heart of this machine lies the determining factor for the high quality of sound it delivers—a high-performance 12-bit PCM system plus analog logarithm compression. The delay times for the RDD-20 are purposely restricted to the most practical range between 0.75—400ms to avoid the sacrifice in sound quality that extra-long delay times entail. The result is an outstanding frequency response, perfectly flat all the way to 15kHz. So now you can create sharp, impressive delays, flanging, doubling and chorus effects, all with the greatest sound quality available. The RDD-20 also has a Delay Tone control for subtly varying the sound. Capable of delivering it all—from intense effects which make optimum use of the unit's superior frequency response to an analog-like mild echo, the RDD-20 perfectly matches any instrument to create a truly wide range of sound effects.

CONTROLS

- **DELAY TIME:** RANGE² selects a delay time in 9 steps from 1.5 to 400ms, with FINE² allowing continuously variable adjustments over a 40.5—41 range. Combining these two controls will allow you to set a very precise delay time anywhere in the range between 0.75—400ms, enabling an astonishing variety of effects to be produced.
- **MODULATION:** RATE controls the LFO modulation speed while DEPTH sets the depth of LFO modulation. This control is effective when creating flanging and chorus effects.
- **FEEDBACK:** This decides the number of times the delay sound is to be repeated. If set to the MIN position, a single delay can be obtained.
- **DELAY TONE:** Will set the tonal characteristic of the delay sound, from a sharp, biting sound to one that's mild. LEVEL will determine the proportion of direct and delay sound.





POINT OF PERFORMANCE

A major feature of the RDD-20 is the built-in DELAY TONE control for creating a tremendous diversity of sounds. Rotate the knob clockwise for a sharper effect with treble emphasis. A softer, natural-sounding echo will be the result of a counter-clockwise setting. For a deeper echo effect, set the DELAY TONE control at a setting slightly lower than a normal setting. This will prevent the delay sound from adversely affecting the direct sound. Fig. 1 is a setting for producing a chorus effect. Adjusting the DELAY TONE lets you increase the range of available sounds. Fig. 2 depicts the setting for creating a long-echo sound that's perfect for single-note guitar and synthesizer soloing. The key to maximizing the potential of this setting is to

1) Chorus-effect setting



2) Long echo setting



match the delay time to the music's tempo, making use of the DELAY TIME FINE control. With an electric bass, the addition of a short single delay of approximately 20ms will produce

the double-tracking effect so favored by Jaco Pastorius. By thickening the sound and making it more metallic, this setting really brings out the best in a chopper playing style.

TRICK & SHOCK

A Uniquely
RDD-20 Effect

This might sound rather surprising, but try connecting a FS-5L/FS-5U foot switch or a FV-50L volume pedal directly to the MODULATION BUS jack (for the FV-50L, use the output jacks). This will allow the RDD-20's delay time to be adjusted on the MODULATION DEPTH control to be switched on/off by operating the pedal. Different settings for the DELAY FINE and MODULATION DEPTH controls will generate variations during pedal operation, a most interesting effect for live performing.



SPECIFICATIONS • PCM System: 13 bit pulse/analog/digital compression • Delay-Timer Controls: Range (1, 2, 3, 4, 12, 15, 25, 50, 100, 200, 400ms, Fine) • Delay (1 to 11) • Frequency Response: 20Hz to 15kHz (±1%) • Delay: 10ms to 600ms (±1%) • Effect Direct • Modulation Controls: Rate (50Hz to 10kHz, Depth) • Feedback Control Level • Modulation BUS Jack: 1 • Modulation Priority Switch: 1 • Remote Jack: Effect Control • Input Impedance: 100kΩ • Input: 100mV • Output Level: 1 • Output: 1 • Output Load Impedance: Over 10kΩ • Power Source: BTDC by PDA series AC Adapter • Dimensions: 2 1/2" (H) x 4 1/2" (W) x 1 1/2" (D) • Weight: 800g (2.2lb.)

RSD-10 DIGITAL SAMPLER/DELAY

Digital Sampler with 2 Octave Plus Range and Controllable Dynamics.

The RSD-10 digital effects unit incorporates a sampling function as well as a delay function in a single body. Used in the Sampler mode, 2 octaves and more of scale can be produced as well as a duration of up to 2 seconds for the sampled sound. With an innovative circuit to control pitch with audio signals in a different manner to both MIDI and CV/Gate, the RSD-10 will transform any synthesizer into a sampling keyboard just as you would connect an effects unit. Depending on the synthesizer it is used with, a wide range of effects such as dynamics, pitch bending, modulation, portamento, attack and decay times, can be controlled. What's even more attractive is that the RSD-10 is not restricted for use with synthesizers alone, but can be used with a drum pad (optional BP-1) rhythm machine and pedal switch. In the Digital Delay mode, a 2ms delay to an ultra-long delay of up to 2000ms can be obtained. To top things off, the RSD-10's 12-bit digital system in tandem with the noise reduction system ensures sound that's clear and free of noise.

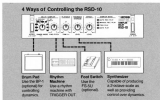
CONTROLS

- **RANGE/MODE:** To select between the delay and sampler modes. In the delay mode, you can choose 1 of the 5 delay time ranges while the sampler mode lets you select from autoperforming, manual/recording, gate or trigger-generated sampling effects.
- **RISE/PITCH:** When the unit is in the delay mode this will enable you to fine-adjust the amount of delay time. When the RSD-10 is used as a sampler, this control will adjust the playback sound pitch.
- **PLAYBACK TRIM:** Operative only when the unit is in the sampler mode, this allows you to vary the tail-end or the latter part of the playback sound to cut off any unnecessary portion of the sound.
- **FEEDBACK/OVERDUB:** For selecting the number of repeats desired when the unit is in the delay mode and for adjusting the level of overdubbing when the RSD is in the sampler mode.
- **EFFECT LEVEL:** For controlling the proportion or ratio of the direct sound to the effect (delay or sampled) sound.



POINT OF PERFORMANCE

With the RSD-10, you are free to utilize any sound that is available to aid you in creating new sounds. The RSD-10 frees you from any restrictions—you can produce a human voice from a synthesizer, sample the shriek of a tee and create truly special effects by over-dubbing. No matter what sound you create, it is essential to produce that sampled sound with a high S/N ratio. You can make sure your sampled sound preserves a high S/N ratio by setting the LEVEL switch to a point just before the input overload indicator lights up. If you're trying to pick up a sound with a microphone, a preamplifier is needed (RPO-10 etc.), but a cassette deck in the Recording Standby mode will also serve to



preampify the signal. If the same sound is to be used repeatedly, it is advisable to put the sound on tape. In addition, other effects

such as sound-on-sound may be initiated by setting ultra-long delay times of up to 3000ms.



A Uniquely
RSD-10 Effect

In the Sampler mode, turn the FINE/PITCH to adjust the pitch of the sampled sound. This will allow you to create effects which are just like sweeping the sound source. The Fig. shows a down-sweep setting. Rotate the knob clockwise to raise the sound's pitch and sweep up. Electronic drum pitch sweep sounds are simple to create too. Please be aware that this control will not function if a keyboard is connected to the unit.



SPECIFICATIONS • Input level/Input impedance: ~30dBm/1MΩ • ~10dBm/17kΩ • Output level/Output impedance: ~30dBm/1kΩ • ~10dBm/16Ω • Output load impedance: More than 1kΩ • Type of A/D converter: 12 bit • analog logarithmic compression • Sampling time: Max. 3.000ms • Delay time: 100-3.000ms • Frequency response (Direct): 10Hz to 20kHz (±1dB), Sample/hold: 200-400 Hz (±1dB), Filter: 0-250 Hz (pass) noise: ~50dBm (BIF A-type switch): ~30dBm • Input range of the external pitch control: C5 (523Hz) to C7 (2093Hz) • Controls: Delay sample/sample mode, delay time (16/sample pitch, playback time, feedback/comb/filter, delay/sample level) • Switches: Power, effect (On/Off), level, ~30dBm ~ 10dBm • jacks: Input (standard phone, pin), output (standard phone, pin), pitch control input (standard phone, pin), pitch control input (BIF-1) (trigger control input (as well as control for the DP-3), effect remote (On/Off), AC Adaptor (IN/OUT) • Indicators: Power, effect, overload, recording • Power source: 9V (6) to PS4 series AC Adaptor • Current draw: 100mA • Dimensions: 215(4) x 44(5) x 100(2)mm (8 1/8" W x 1 3/4" H x 4 1/16" D) • Weight: 1 kg (2.2lb, 3.3oz)

RPS-10 DIGITAL PITCH SHIFTER/DELAY

Ideal for Ultra-High Speed Pitch Shifting and Superior Sound Quality.

The RPS-10 is a single unit which combines digital pitch shifting and delay functions in its compact dimensions. The heart of this machine is a newly-developed high-performance custom LSI which allows the RPS-10 to have a flat frequency response of up to 15kHz as well as ultra-high speed shifting with virtually no difference between the direct and effect sounds. Pitch shift is continuously variable between -1 to +1 octaves. Along with harmony effects, wide-ranging sounds can be created, from pitch-shifted chorus effects to octave effects. There is even a tuner output terminal for instant visual confirmation of the amount of pitch shift when connected to a Chromatic Tuner (TU-12 etc.). In addition, a keyboard control allows the amount of pitch shift to be controlled from a keyboard which is connected to the unit. Delay time is variable over the range of 25—800ms. Applicable to both modes is a INV position to produce a "reversed tape" sound.

CONTROLS

- **RANGE/MODE:** To select between the pitch-shift and delay modes. In the delay mode, it allows you to set the delay time in any of 5 steps and choose the INV effect if desired. When the unit is in the pitch-shift mode, Position A will produce high-speed pitch-shifting while Position B is for when you want to emphasize real sound quality. The INV effect is also possible in this mode.
- **PITCH:** This will allow you to continuously vary the amount of pitch-shift when the RPS-10 is in its pitch-shift mode. Set in the middle for just the direct sound, turn clockwise for shifting up to 1 octave and counterclockwise for shifting down to 1 octave lower than the input signal.
- **FINE:** To provide very fine adjustments to the delay time and the amount of pitch-shift.
- **FEEDBACK:** Controls the amount of feedback in both delay and pitch-shift modes.
- **MIX:** For adjusting the ratio of direct sound to the effect sound.



POINT OF PERFORMANCE

With the RPS-10, pitch can be shifted over a range of ± 1 octave with the original tempo preserved. The key to effectively using the RPS-10 lies in mixing the right proportion of direct sound to the effect sound, making sure the scale and image of the direct sound are not destroyed.

Fig. 1 is the setting for creating pure chorus effects with no modulation by shifting the pitch by 20–30 cents. Rich 12-string guitar-like sounds are really effective in acoustic playing. On Joni Mitchell's "Dog Eat Dog" LP, the guitarist Michael Landau often employs this sound. It's a most useful setting with anything from electronic pianos to vocals. Fig. 2 shows a setting where the original sound is mixed with a note

1) Chorus effect setting without modulation.



2) Lowered octave effect setting.



1-octave lower. Use this setting with synthesized strings and bass for a rich, wider sound. Among the RPS-10's applications is a

distinctive metallic sound, created by just slightly adding a 1-octave higher note to an electronic piano sound.



A Uniquely
RPS-10 Effect

Just by selecting the pitch shift (1N) position, you can create a marvelous effect. Increase the FEEDBACK level and you'll hear an intensely mysterious sound. With feedback occurring, the pitch of the pitch-shifted reversed sound will still shift further. It's a creative special effect that really sounds impressive during intros or endings.



SPECIFICATIONS • Input level/input impedance: -30dBm/1M Ω • Output level/output impedance: -30dBm/1k Ω • -10dBm/50 Ω • Output test impedance: Over 10k Ω • Pitch shift: -1 oct. to +1 oct. • Delay time: 25ms to 800ms • Frequency response: 20Hz to 20kHz (1% THD) • Pitch interval: 1/12 to 1/24 (1% THD) • Reverb: none, Under -90dBm/1k Ω • Level switch: -20dBm • Controls: Delay, reverb, pitch, pitch, pitch, delay, time, reverb, feedback level, mix balance • Switches: Power, effect (On/Off), level (-20dBm to -10dBm) • Indicators: Power, effect • Jacks: Input (standard phone), pitch, Output (standard phone), mix, Hold (On/Off), Effect remote (On/Off), Turn on, Keyboard control • Power Source: 9V DC by PSIA series AC Adapter • Current draw: 100mA • Dimensions: 31.8mm x 44.5mm x 149.5mm (W x H x D) • Weight: 100 g (2.2 lb)

ROD-10 OVER DRIVE/DISTORTION

A Powerful Effects Tool Condensing Six Different Effects.

The ROD-10 is a multiple effects unit that incorporates a total of six independent effect circuits including three overdrives, one distortion circuit, a fuzz and a 3-band equalizer. It is a powerful sound effect tool that makes it possible to produce virtually any type of distortion sound from a single unit. Because it employs an all-stage discrete amp configuration, the distortion is natural, and noise minimized. The equalizer section features a parametric Midrange variable between 250Hz and 4kHz, making it easy to contour your sound—from gutsy heavy metal distortion to mild overdrive. In addition to the normal Out jack, the ROD-10 is also equipped with a built-in Line Out jack for delivering output with simulated guitar amp sound characteristics. The Line Out jack facilitates direct input into a mixer for live performances and recording.

CONTROLS

- **MODE:** Select the desired sound mode. Choose between three Overdrive modes with different degrees of effects, one Distortion and one Fuzz mode.
- **DRIVE:** Determines the degree of distortion. The further clockwise the control is turned, the more intense the distortion, and vice versa.
- **EQUALIZER:** 3-band (Low, Mid and High) equalizer essential for modifying tonal characteristics. The use of a 250Hz—4kHz variable parametric Mid enables you to recreate the sound you hear in your mind—exactly.
- **LEVEL:** This control determines the volume of processed sound in relation to the direct sound. Compensates for any level difference between effect on and off.



POINT OF PERFORMANCE

With five built-in selectable modes and a 5-band equalizer, the ROD-10 packs just about any kind of distortion effect into a single unit. Effective use of the ROD-10 is easily achieved with only the mode selector and equalizer setting. Fig. 1 shows a setting perfect for lead guitar solos, using the Overdrive mode. By boosting frequencies around 1 kHz with the equalizer, you can produce a sound with lots of presence, one that really stands out. Fig. 2 setting uses the Distortion mode for heavy metal backing. A more dynamic metal sound can be produced just by boosting the lows and highs with the equalizer. Also available are a Fuzz mode capable of reproducing that retro 1960s sound, and

1) Overdrive setting ideal for lead guitars.



2) Heavy metal backing setting.



an Overdrive mode 1 for that slightly distorted effect so perfect for fusion. These are just the basic settings really. Try various settings

with different modes and amaze yourself!



A Uniquely
ROD-10 Effect

Use of the ROD-10 is not necessarily limited to a guitar. It also does a lot for bass or keyboards. For non-guitar instruments, Overdrive mode 1 seems the perfect choice. Light distortion laid over a synthesizer's electric piano or organ sound results in sound with a particularly realistic feel. Some very interesting effects can also be created by hooking the ROD-10 up to a rhythm machine or a snare drum.



SPECIFICATIONS • Input Level/Input Impedance: ~200mV/10K • Output Level/Output Impedance: ~200mV/50K • Output Load Impedance: Over 10K • Control Mode: Drive, Equalizer LQ, Equalizer MD, Frequency, Equalizer MD, Level, Equalizer FR, Output Level • Switches: Power (ON/OFF), Effect (ON/OFF) • Indicators: Power, Effect • Jacks: Input, Output, Line Outputs (Standard, Post), Effect Monitor (ON/OFF), AC Adapter (AC/GT) • Power Source: 9V DC (9000 PMA-100, 200, 240 or 91PMA-7) • Current/Draw: 50mA • Dimensions: 216mm x 148mm x 44mm (8.5" x 5.8" x 1.7") • Weight: 100 g (3.5 oz.)

RBF-10 FLANGER

Superior S/N Ratio Achieved with Built-In Noise Reduction.

The RBF-10 is a stereo flanger with its 2 outputs consisting of D+E and D-E. Most conventional flangers are only applicable for guitars and basses due to their tendency to decrease S/N ratio as the direct sound is intensively modified. Overcoming this barrier is the RBF-10's built-in noise reduction circuitry for noiseless flanging. That means that the RBF-10 can be used with anything from keyboards to vocals. In addition to the RATE and DEPTH controls, there is a MANUAL control for selecting the center frequency of the flanging effect. The FEEDBACK control assists in creating rich flanging effects with normal or inverted phase. With the MIX control, the proportion of direct to the effect sound may be varied. By creatively using these controls, many different sound effects ranging from an intense jet-like whooshing to a pleasant chorus-type sound to vibrato may be produced.

CONTROLS

- **MANUAL:** For selecting the center frequency of the flanging effect. Set it to best match your instrument's tonal characteristics.
- **RATE:** For adjusting the speed of the flanging effect. Turn clockwise for increased speed and counterclockwise to slow it down.
- **DEPTH:** This adjusts the depth of the flanging modulation. Turn clockwise for a deeper-sounding effect and counterclockwise for shallower flanging.
- **FEEDBACK:** For controlling the amount of the feedback signal in normal (NOR) or inverted (INV) phase. Increase the FEEDBACK setting for emphasizing the flanging effect.
- **MIX:** For adjusting the proportion of direct sound to effect sound. Very useful when the RBF-10 is patched into a mixer effects loop.





POINT OF PERFORMANCE

The RBF-10 can produce very intense effects, so good musical sense is required to make optimum use of this unit. Fig. 1 is the setting for "jet" flanging. By inserting a distortion unit just before the RBF-10, that metallic guitar sound so essential to heavy metal music can be produced. When used with a synthesizer, the RBF-10 will really make a lead solo stand out from the rest of the backing. The key here is to increase the FEEDBACK level to a point where the prominent characteristics of flangers are really emphasized. Good examples are represented by Anthony Jackson's playing, when accentuating the treble on bass, or adding flanging effects to cymbals and other percussion during recording, which is possi-

1) "Jet" flanging effect setting.



2) Chorus-like mild effect setting.



ble with the RBF-10's superior S/N ratio. The range of exciting applications is limited only by your imagination. Fig. 2 depicts a chorus-like setting. The very wide

range of control afforded by the RBF-10 enables chorus- and phaser-like sounds to be produced as well.



A Uniquely
RBF-10 Effect

For most flanging effects, normal (NOR) feedback is usually applied. The RBF-10 will even allow you to invert (INV) feedback. This Invert Feedback function is really helpful when you want to create deep resonance effects, without that metallic-sounding characteristic of flangers. The result will be a pleasing, mild sound with slightly unusual flanging effects, somewhat similar to a phaser.



SPECIFICATIONS • Controls: Modulation/Manual Delay Time (0.0ms to 3.2ms), Modulation Rate (100ms to 10s), Modulation/Depth, Feedback Level, Mix Balance • Input/Output Impedance: - (500k Ω) Min. - (100k Ω) Max • Output Level: - (20dBm) - (10dBm) • Remote Jack: Effect On/Off • Modulation RBF Jack: 1 • Modulation/Polarity Switch: 1 • Power Source: BVDC by PS4 series AC Adapter • Dimensions: 2.18"(5) x 6.69"(5) x 1.69"(3) mm (6.918" x 1.74" x 5.115") • Weight: 300 g (10.6 oz)

RPH-10 PHASER

3 Different Phasing Modes Let This Phaser Create a Multitude of Effects.

A new-generation RPH-10 Phaser with 12-stage phase-shift circuitry and recording studio quality sound. According to the mode selected, 3 completely different effects can be produced. Mode I (6 stages) is for soft and light phase-shifting, while Mode II (10 stages) creates deeper phase-shifting all the way from the lows to the highs. Mode III (12 stages) is for when a sharp and intense phasing effect is required. Apart from the basic RATE, DEPTH and FEEDBACK controls, the RPH-10 is also equipped with a MANUAL control to adjust the center frequency around which the phase shifting occurs. With this control, it becomes easy to find a setting that is suitable for a particular instrument. A custom IC, newly-developed, is utilized in the phase-shift circuitry to produce phase-shifting which is exceptionally smooth.

Although phasers usually tend to get noisy as the number of stages increases, the RPH-10's built-in noise reduction system ensures a wonderfully clear sound.

CONTROLS

- **MODE:** For selecting one of the following 3 modes. Mode I provides 6-stage shifting for a mild phasing effect, while Mode II offers a deeper effect due to 10-stage shifting. Mode III is for very intense and powerful 12-stage phasing.
- **MANUAL:** This will select the center frequency of the phase-shifting and helps to match the phase-shifting to the type of instrument used.
- **RATE:** For adjusting the speed of the phasing effect. Turn clockwise for increased speed and counter-clockwise to slow it down.
- **DEPTH:** For adjusting the depth of the phasing effect. Turn clockwise for a deeper-sounding effect and counter-clockwise for shallower phase-shifting.
- **FEEDBACK:** For controlling the amount of feedback signal to create a stronger phasing effect.





POINT OF PERFORMANCE

Having 3 different modes, the RPH-10 allows the user to produce a very wide array of effects, from the sharp and intense to a soft and light effect. Effectively employing these 3 modes will allow the RPH-10 to display its full potential. In Fig. 1 you see the setting utilizing Mode I to produce a phasing effect which is shallow and natural-sounding. An ideal setting for electric piano, one that delivers an open, wide type of sound with a slight emphasis on the highs, you'll find it often used by Richard Tee. Mode II is used in Fig. 2 to create deeper phase shifting, an effect that really puts synthesizer lead solos in the spotlight; it's also effective for guitar backing where moaning is used. By setting RATE to a slightly lower position, you

1) Setting using Mode I for a natural-sounding effect.



2) Setting employing Mode II for a deeper phase-shifting effect.



have the perfect sound for reggae cutting. With Mode II, a deep and very intense phasing sound is effected by taking full advantage of the 12-stage phase circuitry.

It's a setting that really adds sparkle to synthesized strings with the RATE control lowered just a bit.

TRICK & SHOCK

A Uniquely
RPH-10 Effect

Using two RPH-10 units, you can produce true stereo phasing with the modulation of the two units being mixed. First, connect the 2 units through the MODULATION BUS jack. Set the RATE lower and the DEPTH greater on the first unit. For the second unit, use opposite settings. The result is the complex modulation effect as shown in the Fig. on the right.



SPECIFICATIONS

Modes: I, II, III • Controls: Modulation Manual/Modulation Rate (10Hz to 14Hz), Modulation Depth, Feedback Level • Phase Shift: Mode I: 8 stages (100%), Mode II: 10 stages (100%), Mode III: 12 stages (100%) • Gain: Unity • Input/Output Impedance: - 10kOhm/10kOhm • Output Level: - 10dBm, - 10dBm • Output Load Impedance: Over 10kOhm • Remote Jack: Effect On/Off • Modulation BUS Jack: 1 • Modulation Priority Switch: 1 • Power Source: 9V DC (by PS-9 series AC Adapter) • Dimensions: 218(W) x 44(H) x 58(D) mm (8.6(W) x 1.7(H) x 2.3(D) in.) • Weight: 500 g (1.1 lb.)

RCL-10 COMPRESSOR/LIMITER

4 Different High-Performance Functions Integrated Into a Single Unit.

The RCL-10 Compressor/Limiter is a dynamics processor integrating the functions of a compressor, limiter, expander and noise gate into its compact dimensions. A high-performance VCA makes possible a very high S/N ratio with low distortion to ensure your sound stays clean without distortion. The compressor will even out the levels of sounds with wide dynamic ranges, while the limiter will just compress input peaks, thus reducing distortion. The expander function acts to expand or increase dynamic range, for those times when sound with great dynamics is required. The independent **ATTACK TIME** and **RELEASE TIME** controls allow the user to make very fine adjustments to achieve the exact effect he seeks. The noise gate function keeps noise down when nothing is being played. There's also a key-in jack for producing a gate echo effect when the unit is combined with a reverb.

CONTROLS

COMPRESSOR/LIMITER/EXPANDER FUNCTIONS

- **THRESHOLD:** For selecting the level of the signal at which compression/expansion will be activated.
- **RATIO:** This adjusts the ratio of compression. Setting this control determines whether the RCL-10 will function as a compressor, limiter or expander.
- **ATTACK:** For adjusting the amount of time before compression/expansion enters into play.
- **RELEASE:** For setting the time till the desired point of release.

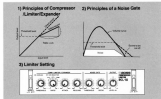
NOISE GATE FUNCTIONS

- **THRESHOLD:** For selecting a point beyond which the input signal will be noise-gated.
- **DECAY:** For adjusting the time it takes for the input signal to decay and fade out.
- **OUTPUT LEVEL:** This will adjust the level of the compressed/limited signal being output.



POINT OF PERFORMANCE

Because the RCL-10 incorporates the 4 different functions of compressor, limiter, expander and noise gate, it is important that the user fully understands each function and effectively uses each function. In Fig. 1, the relationship between the threshold level and ratio is shown when employing the RCL-10 as a compressor/limiter/expander. As shown here, just the signal which exceeds the threshold level is compressed or expanded, depending on your particular requirement. It is important to note that compressors and expanders generally shape the sound in a total manner, so care should be taken to set the THRESHOLD and RATIO controls at low settings. But when the RCL-10 is used as a limiter to squash input peaks, set the THRESHOLD and RATIO controls to higher levels. Fig. 2



illustrates the principle of a noise gate where any signal lower than the set threshold level is muted, thus keeping noise away from the music. In the noise gate mode, the best method of use is to set the DECAY TIME to obtain a

natural decay effect. In Fig. 3, you see the setting for use as a limiter, perfect for preventing distortion during recording and for eliminating undesired input peaks for chopper bass playing.

TRICK 2 SHOCK

A Uniquely
RCL-10 Effect

Through the Key-In jack, the unit's gain can be controlled by an external audio signal, therefore allowing a variety of special effects to be created with the RCL-10. An example is to connect a tape recorder to the input jack and control the recorded music with a guitar or keyboard linked to the Key-In jack. In this way the music can be played back only when the notes with signals higher than the set level are played to trigger the recorded music. In this way, "scratch" effects are easily produced.



SPECIFICATIONS • Compressor/Limiter/Expander: Ratio 1:1.5 to ∞ continuously variable Threshold: -40dB to 0dB (Level switch at -20dBm) Attack Time 0.2ms to 50ms, Release Time 10ms to 2s • Noise Gate: Threshold: -∞ to -100dB (Level switch at -20dBm) Output Level/Effect: -∞ to +14dB • Input/Level Impedance: 200Ω to 1MΩ • Output Level: -20dBm to -100dB • Output Load Impedance: Over 10kΩ • Memory Jacks: 2 Head Out/2 • Power Source: 9V DC by PSR series AC Adaptor • Dimensions: 215(W) × 44(H) × 105(D) mm (8.5(W) × 1.7(H) × 4.1(D) in) • Weight: 900g (2.0 lb.)

RPQ-10 PREAMP/PARAMETRIC EQ

A 2-band Parametric Equalizer That's a Key Performer When Creating Sounds.

The RPQ-10 is a 2-band equalizer with a built-in pre-amplifier. Being of the parametric type, the center frequency in each of the two bands, LOW (40Hz—1kHz) and HIGH (600Hz—15kHz), may be boosted or cut (up to ± 15 dB) as desired, along with full Q (frequency bandwidth) control. Compared to a graphic equalizer which mainly emphasizes tonal compensation, the RPQ-10 makes for much more impressive and dedicated sound creations. The slide controls are all LED-equipped for instant visual confirmation of settings, even on dark stages. A built-in MIC INPUT jack makes provision for directly connecting a microphone to the RPQ-10, adding a lot of flexibility to vocal effects and for preventing howling feedback. All this is done with superb sound quality, thanks to the strict selection and control procedures Boss maintains for all its products, giving you the benefits of its continuing search for sonic excellence.

CONTROLS

- **INPUT LEVEL:** For adjusting the level of the signal coming into the RPQ-10, it should normally be set to the highest setting possible before the OVERLOAD indicator flashes.
- **FREQ (HIGH, LOW):** These sliders will let you select the center frequency range you wish to boost/cut.
- **Q (HIGH, LOW):** These sliders control the bandwidth of the frequency you wish to boost/cut. "A" is for sharp, narrow equalizing at the predetermined frequency point while setting the slider toward "C" will provide a broad-ranging boost/cut which acts like a conventional tone control.
- **LEVEL:** For selecting the amount of desired boost/cut by ± 15 dB.
- **TOTAL LEVEL:** To compensate for differences in level between the pre- and post-equalized signal. This slider has a built-in LED which flashes to indicate overload on the equalized signal.



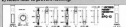
POINT OF PERFORMANCE

The 2-band (HIGH and LOW) configuration of the RPQ-10 Parametric Equalizer proves it to be an extremely useful unit when you want to create wide-ranging tonal modifications. Fig. 1 shows a setting for effectively using the equalizer. Set the Q and LEVEL controls to maximum settings to bring about a radical change of frequency response. Next, while playing an instrument, adjust the FREQUENCY control up and down to locate the optimum equalizing point while listening to the changes in tonal response. Lastly, adjust the Q and LEVEL controls for completing the setting. In this way, it's simple to emphasize the attack of a guitar or bass, and is also good for adding a metallic touch to an electric piano sound. For live

1) Creating a new sound while listening to variations in the sound.



2) Notch filter to prevent howling.



recording purposes, the pre-amplifier section of the RPQ-10 plays an important role. In Fig. 2, we have a notch filter setting which is most effective in cutting feedback on vocals. Tonal

characteristics retain their original properties because the Q control allows very sharp or narrow cuts to be made.

TRICK & SHOCK

A Uniquely
RPQ-10 Effect

The RPQ-10 is flexible enough to create wow or phaser effects. Set all the LOW BAND slide controls at their center positions. Next, increase the Q and LEVEL settings to the maximum, and slide the FREQUENCY control up and down in time with the music being played. The result? Wow effects. Now, with the same setting, lower the LEVEL controls. You can now create light phaser effects. It's an especially useful trick when processing sound that's already recorded.



SPECIFICATIONS • Input level (standard input impedance MIC, -10dBm/15dB INET, -20dBm/15dB LINE, -10dBm/50dB • Output level (standard output impedance (standard phone), -10dBm/15dB • Output level impedance (more than 10k) • Frequency response (line input) 10Hz to 20kHz (±1dB) (flat) • Resonance: -30dBm (±1dB) at two input connection (standard output) • Center frequency: Low band 40Hz to 15kHz (±1dB) (notch) 600Hz to 15kHz (±1dB) • Q: 0.7 to 1 • Variable level range: ±10dB • Controls: Input level, frequency (slide control with LED), Q (slide control with LED), level (slide control), slide volume with LED • Switches: Power, effect (parametric equalizer) • jacks: Input jacks (standard phone, MIC, INET) (pin 1, LINE) output jacks (standard phone, pin) effect return jack (20kΩ), AC adapter jack (BA-027) • Indicators: Power, effect, overload input, overload output level, LED flashing system • Power source: 9V-DC Piezo (series AC) Adaptor • Current draw: 60mA • Dimensions: 216(9) × 44(9) × 107(3) mm (8.5(18) × 1.7(18) × 4.2(18) • Weight: 900 g (2 lb)

RGE-10 GRAPHIC EQUALIZER

Fine Tonal Compensation with 10-Band Graphic Equalizer.

The RGE-10 Graphic Equalizer was specifically designed for ultra low-noise performance to enable it to be used in recording studios and onstage as well as to be connected to the finest audio equipment. The RGE-10 equalizes in 10 bands, in steps of an octave from as low as 31Hz to 16kHz—providing ideal flexibility for settings as well as ease of use. Up to $\pm 12\text{dB}$ of cut and boost are available, making the RGE-10 an extremely adaptable equalizer, handling it all from fine tonal compensation to startling sound creations. A prominent feature of graphic equalizers is of course the visual confirmation of the equalized frequency curve. The RGE-10 takes it one step further with an LED indicator for each slider, letting you check settings on dark stages or studios and making quick further changes possible.

CONTROLS

- **EQUALIZER SLIDERS:** 10 sliders set at frequencies from 31Hz (does you tend to feel as vibrations in the air more than as sounds you hear) to 16kHz (extreme highs that help to accentuate or control harmonics) let you boost or cut up to $\pm 12\text{dB}$ at each of the 10 frequency bands. Each slider also has a center click setting for quickly and accurately returning to a flat "0dB" setting.
- **LEVEL:** For minimizing any level differences between the direct and equalized sound. This lets you control up to $\pm 12\text{dB}$ of level by moving the LEVEL slider up or down to eliminate differences in level.



POINT OF PERFORMANCE

Total compensation, from a very fine degree to radical changes, are easily effected with the RGE-10's 70 bands in octave steps over the frequency range from 30Hz to 16kHz. In combination with the visual confirmation of the frequency curve, the unit is also effective for processing sounds previously mixed, and providing fine tonal compensation for instruments and vocals too. But the RGE-10 really comes into its own for creating a spacious, open sound which will best match the acoustic characteristics of a hall during live performances. In Fig. 1, the setting is useful for making vocals stand out. In this setting, a boost can be centered around 1kHz; with just a touch of boost at 4kHz too. This will add clarity to the vocal and gives it an open sound. If the hall makes this

1) Setting for making vocals stand out.



2) Setting for creating a "powerful" sound.



setting give a tinny or metallic sound to the vocals, apply slight cuts around the 4kHz area. Fig. 2 is a setting that adds some power to sound that has been already mixed down on a multi-track

recorder. Cut out unwanted 30Hz rumble by using the RGE-10 as a subsonic filter or emphasize the bass drum at 60Hz and 125Hz and add attack at 4kHz and 8kHz.

TRICK & SHOCK

A Uniquely
RGE-10 Effect

Stereo effects can be obtained from a monaural signal by using 2 RGE-10 units. Use a J-5 multiple jack to split the input into 2, and connect each to an RGE-10 equalizer. Now set the sliders on each so the settings on one unit are the opposite of the other's sliders. Apply boosts/cuts alternately: if 31Hz is boosted on Channel A, cut 31Hz on Channel B, and so on. When the sound is played back through an amplifier, the left and right channel tonal characteristics are synthesized in space, delivering wide, pseudo-stereo sound.

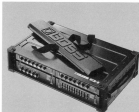


SPECIFICATIONS • Equalization: 110dB, 10 sliding controls each with an LED • Level Control: 110dB, sliding control with an LED • Input Level Impedance: ~2000mΩ • Output Level: ~200mΩ • Gain: Unity • Output Load Impedance: Over 10kΩ • Remote Jack, Effect Control • Power Source: 9V DC by PSA series AC Adapter • Dimensions: 216px (x) 440px (x) 160px (mm) (W x H x D) • 1.34" x 6.51" x 1.63" • Weight: 900 g (2 lb.)

OPTIONS

Micro Studio Series provides a wide array of options to expand your playing.

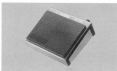
A handy carrying box for four Micro Studio Series units.



RCB-4 CARRYING BOX

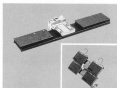
Perfectly accommodating four Micro Studio Series units, the RCB-4 makes it simple to carry effect units onstage or into the studio. Just remove the front and rear protector covers and it's all set up for yours start playing anytime, anywhere. The RCB-4 can also accommodate 18-inch effect units having a depth of up to 280mm.

SPECIFICATIONS • Dimensions: 630mm x 133mm x 280mm (25 1/8" x 5 1/4" x 11") • Weight: 5 kg (11 lb.)
• Accessories: Rack mount angle



Used in conjunction with the RSD-10 Digital Sample/Delay, the BP-1 Pad Controller lets you trigger the sampled sound simply by hitting the pad. Full dynamics control capability allows volume to be easily varied through stick control, while a Sensitivity control enables fine-adjustment of the pad's sensitivity. The BP-1 also serves as an external pad for integrating the MPD-4 Pad System.

BP-1 PAD CONTROLLER



Two BP-1 Pad Controllers may be mounted on a common stand with the BPH-2 Pad Holder. The photograph shows an expanded version with 4 pad controllers mounted.

BPH-2 PAD HOLDER

Effectively Using the AC Adaptor

Every unit of the Micro Studio Series indicates its power consumption on its rear panel, just by the AC Adaptor jack. When a number of Micro Studio Series units are to be used with a single AC adaptor, make sure the units are set so that the total current draw will not exceed the AC Adaptor's power supply limit (RPW-7: 700mA, PSA Series: 200mA).

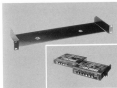
Supplies 700mA to power a number of Micro Studio Series units.



When integrating several Micro Studio Series units into a single system, connecting an AC adaptor to each can be a very bothersome task. A solution is provided by the RPW-7 Power Supply, capable of supplying up to 700mA at 9V DC power. 5-DC outputs are built into slots connecting 5 or more Micro Studio Series units through each unit's adaptor input/output jacks. Another attractive feature is the RPW-7's ability to supply power to Micro compact effect pedals which permit use with the PSA Series Adaptor.

SPECIFICATIONS • Rated output voltage: 9V-DC
• Output current: 700mA (maximum) • Power output: 1
• Power indicator: 1 • DC-out jacks: 5 • Power:
110/220VAC/50/60Hz • Power consumption:
35W (maximum) • Dimensions: 216mm • 46mm •
140mm (8.5" x 1.8" x 5.5") • Weight: 1.2kg
(2lb. 10oz.)

RPW-7 POWER SUPPLY



An adaptor designed exclusively for mounting 2" Micro Studio Series units on a single 19-inch rack. Mounting is just as fast and simple as turning a single screw.

RAD-10 RACK MOUNT ADAPTOR



An AC adaptor capable of supplying up to 200mA at 9VDC. Can power up to effect units, such as equalizers, if they have a low current draw.

PSA Series AC ADAPTOR

MICRO STUDIO SERIES CONNECTIONS

2 Micro Studio Series units may be mounted on a single shelf of a standard 19" rack. Although each of the units provides the user with a host of sound variations, a combination of several units performs wonders in terms of creating new sounds. The Series' compact design extends user applications, and each unit's specialty functions can be effectively combined into an integrated system. Increase the range of sounds you can create and make your playing more effective when you combine several units.



MODULATION BUS

The RDO-10, RPH-10 and RBF-10 from Boss all feature the modulation control function and each is equipped with a MODULATION BUS jack to permit advanced stereo effects. By linking 2 units with a single standard cord, you can obtain stereo sound with perfect interlocking of the 2 units' modulation. Linking is not just limited to 2 models of the same type, but different ones too. Using the J-S Multiple Jack will allow interlocking of more than 2 units for even greater effects. Built-in POLARITY switches permit each unit's modulation to be inverted if desired.





STEREO LINK

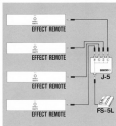
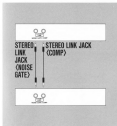
Noise gates and limiters are usually inserted at the end of an effects system. 2 PCL-10 units, one for the left channel and one for the right, may be stereo-linked. Producing natural-sounding compression and noise-gating depends greatly on the perfectly interlocking of the 2 units. To make this easy, each PCL-10 has STEREO LINK jacks for compression and noise-gating functions. Thus 2 units can be perfectly interlocked for all the compression, limiter, expander and noise-gate modes. It's as easy as connecting a standard cord between the NOISE GATE and COMP links respectively on both units!



EFFECT REMOTE

Every Micro Studio Series model is equipped with an EFFECT REMOTE jack to provide not only a simple footswitch control, but to control one unit's effect on/off with the other, when 2 units are connected through this jack. As shown in the Fig. below, a J-5 Multiple Jack will allow a number of units' effects to be turned on/off by using a single footswitch.

- In addition, input/output AC Adaptor jacks are built-in to facilitate powering a multiple number of the Micro Studio Series units within the specified power supply range of the AC Adaptor.



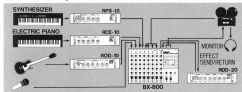
MAKE THE NEWEST SOUNDS!

Every player agrees that the best effects machines are those which can accurately deliver the sounds a player has in mind. The constant pursuit of high performance and multi-functions by Boss has now enabled the Micro Studio Series to hold an unlimited potential for sound creation.

These compact units will often provide you with ideas for creating new sounds. In this section we'll discuss some basic settings, but bear in mind that these suggestions will only display a hint of the unlimited potential of the Micro Studio Series. Try creating your very own sounds.



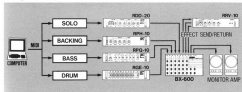
Home Recording



Just a limited number of Micro Studio Series units lets you achieve creative sounds when Multi Track Recording (MTR). An RPS-10 pitch shifter connected to a synthesizer adds depth, while the original sound's appeal is perfectly preserved. Modulation-free chorus or octave effects substantially improve any sound's quality, and for an electric piano, connect an RCE-10 for switching

the basic piano sound with a clear, wave-free chorus effect. Any guitar can definitely use the ROD-10 because it does it all—from craved heavy metal distortion to a fusion-perfect light overdrive effect. The ROD-10's Line output simulates a guitar amp's sound, allowing direct connection to the mixer and proving ideal for MTR purposes.

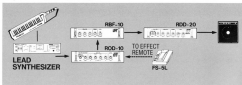
Computer Music



This section covers basic effects to match a wide range of sound sources. If an ROD-20 is used, solos will really stand out from the backing. For backing roles, a phaser or flanger will add just the right touch to chords. To prevent ensemble balance from being destroyed, do not excessively use FEEDBACK, and set the RATE to a lower setting for an effect that's mild. The RPO-10 proves

ideal to help bass emphasize attack and provide the right tonal compensation. The RCE-10 with its visual indication of the frequency response curve is especially suited for rhythm sources. Correcting the balance between various sound sources is simplified. And the use of an RPS-10 for mixer effect send/return lets you enrich dynamics with an appropriate reverb effect.

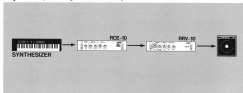
Keyboard (for Lead Solos)



Here's a technique to make sure your lead solo won't ever get buried in the backing. The **ROD-10** comes first, which may be surprising, but it makes for an extra realistic sound when a light overdrive effect is put on a piano or organ sound. Next, the **RBF-10** should be connected for dynamic and distinctive-sounding flanging, but be aware of the **FEEDBACK** control's importance. Too high a setting will bring about adverse effects. Try various

settings for a tonal color to match your sound. Next, an **ROD-20** will add some depth to the sound, and for a deep-sounding effect, set the delay time around 300ms. **LEVEL** should be centered. The setting described here is specifically for creating an exciting sound with effects rather than maintaining the synthesizer's original sound. It's an ideal sound for up-tempo, hard-sounding music rather than for ballads.

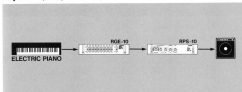
Keyboard (for Strings/Electric Piano)



Avoid using too many effects on synthesized strings or electric piano. Effects should mainly be used to enrich the music's atmosphere, keeping the advantage of the original sound. First use the **RCE-10** to add depth to the sound. Set **RATE** at a lower setting and **DEPTH** should not be set excessively. Chorus-like effects are also interesting. For wide- and rich-sounding effects, an **RRV-10** is

most suitable, with the natural Hall 2 reverb especially effective for strings or electric piano sounds. Perfectly tailored for medium tempo music and ballads, it is a setting ideal for backing those soul songs so popular in contemporary black music. The points of performance lie in adding little tricks with arpeggio to half or whole-note chords.

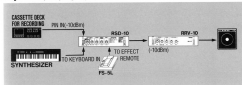
Keyboard (Honky Tonk Piano)



This section describes another interesting effect for keyboards which transforms electric pianos to sound similar to honky tonk pianos. It's an idea which recreates the characteristic sound of a honky tonk piano with its hammers which hit 2 strings by creatively using the RPS-10. First boost the electric piano's middle band with the RGE-10, and cut the highs and lows to reproduce the honky

tonk piano's classic narrow frequency range. Now, using the RPS-10, set the amount of pitch shift around +10 — +30 cents, while the proportion of direct to effect sound is set to 1:1. The result is a sound perfect for ragtime and blues. But of course, apart from this, combining the RGE-10 and RPS-10 creatively in other ways will add a lot to the potential of electric piano sound.

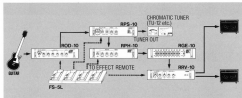
Keyboard (Sampling Keyboard)



Some tips for using a synthesizer as a sampling keyboard in conjunction with the RSD-10: The RSD-10 controls sampled sound with the synthesizer's organ setting, so be sure to use the preset organ tone when using a programmable synthesizer. In this way, you can play other synthesizer sounds when the effect is off, and can switch into the organ tone to play the sampled sound as soon as the effect is switched on, thus

extending the range of stage- and live performance-oriented applications. By having sampled sounds pre-recorded on tape, all the variations of sampled sound can be tried, even when you're at the back of a stage. Finally, adding the RPT-10 creates the perfect setting for creating dynamic and realistic synthesizer sounds as well as sampled sounds.

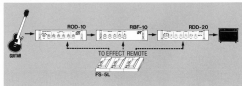
Guitar (for Fusion)



Here are some effects produced with the RPS-10 for emphasizing the clean, wide-sounding characteristics of fusion-guitar playing. To create that very noticeable deep 1-octave unison sound with a single guitar, add the octave effect with the RPS-10. With an overdrive turned on, a recommendation would be to add some phasing with the

RPH-10. By setting the RPS-10 for a chorus-like effect, you can try using Pat Metheny's favorite sound or the sound often favored by Michael Landau and Buzzy Feiten for apogees. If this is what you want, the overdrive and RPH-10 should be turned off. The TU-12 adds a helpful touch for monitoring the amount of pitch shift and for tuning.

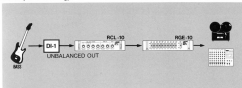
Guitar (for Heavy Metal)



Intense distortion is the basic ingredient for heavy metal guitar sounds. Try the Distortion mode on the RDR-10. To prevent the sound from becoming monotonous, various expressive touches should be added to intense effects to better suit the image of music being played. These may include an ultra-heavy sound resulting from boosting the equalizer's low band and the mid-range around 1kHz, or a more metallic-sounding effect achieved

by sharply boosting just the lows and highs. Create other variations using the Fuzz or other modes. To add more dynamics to a metallic sound, switch on the RSP-10's flanging effect just on dramatic passages of the music, or do the reverse. To top it off, a short delay (20—30ms for recording and 30—40ms for live performances) added with the RDR-20 perfects the sound by delivering a three-dimensional feel to the sound.

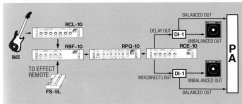
Bass (for Recording)



Some up-to-the-minute recipes for great bass performances. Current trends in music require superior sound quality not just in the lows, but also for the mid to high bands, as is so evident in the "chopper" style. The direct box now becomes indispensable to prevent sound quality in the highs from deteriorating. It's most important in "chopper" playing where the sound tends to become unbalanced between different tones so compres-

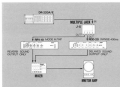
sionlimiting must be used to even out the sound and to prevent distortion at the same time. For heavy metal bass-playing, use an equalizer for cuts in the mids and boost the lows and highs. Fusion "chopper" playing demands a different sound which needs boosts for the mid and high bands, emphasizing each note's attack and producing sound with a lot of "punch."

Bass (for Live Performances)



In this section we'll discuss the effects which ensure a wide, open-sounding bass sound. For "chopper" solos, the RBF-10 is strongly recommended. Flanging's characteristic treble tonal variations let the bass stand out prominently from all the backing. Next we've got the RPO-10 for adding

modulation to the sound as well as emphasizing attacks or for performing much more radical sound-shaping. And finally, the RCE-10 adds a sense of width to the sound with a light chorus that takes full advantage of a pre-delayed effect.

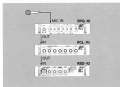
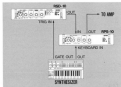


Play scales with the sampling time kept at a constant setting.

Another good example of the RSD-10's flexibility is to combine it with the RPS-10 Pitch Shifter. Set the RSD-10's sampling time at its MAX position. The RPS-10 should of course be in the Pitch Shift mode. Now use the RSD-10 as a recorder and add scales with the RPS-10. You've got a super high-tech sound even a top-level sampling keyboard can't produce!

Create a reversed drum sound with reverb and delay

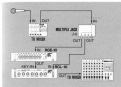
A spectacular drum sound is easily achieved by combining an RSD-10 and RPP-10. Set the RSD-10's delay time to 400ms, for delayed sound output only. Then set the RPP-10 for the reverse reverb in the Multi-Tapped Delay mode, to produce only the sound with reverb, without any direct sound output, reverse reverb sound is first produced, followed by a single delayed drum sound. Perfectly matched timing results in a unique reversed drum sound. It's a highly recommended setting for adding special effects and original touches to the music.



Achieve a higher S/N ratio when sampling with a microphone.

Combining the RSD-10 and RPP-10 will allow you to create sampled sounds through the use of a microphone. In addition, the RPP-10's equalizing function can be used to advantage not just for the sampled sound but also for increasing S/N by cutting the unnecessary portion of the frequency range. Adding the RSD-10 for compression or limiting effects puts the crowning touch to the sound.

MORE EXCITING SOUNDS

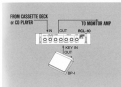
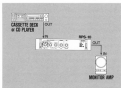


Making vocal recordings sharper and cleaner.

When recording vocals, "s-s-s" sounds tend to create a problem. An effective solution is to combine the RCL-10 and RGE-10 (or RPE-10) to perform as a "de-esser." Add a little boost around 8kHz with the equalizer and use the RCL-10 as a limiter. You'll be surprised at the professional-level quality recordings you achieve by suppressing the troublesome "s-s-s" sounds at a constant level.

Simplifying tuning when playing along with recorded music.

It's quite common to encounter pitch that's slightly deviated when you practice an instrument or even voice with recorded music. The RPS-10 is the solution. It's especially convenient with acoustic piano or sax, both of which do not permit altering pitch. You can even transpose special keys like D[♯] into simple-to-play C, maintaining the tempo at the same level.

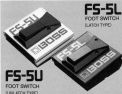


Adding accents to audio signals by hitting a pad.

Now it's easy to add accents to music whenever you want, just by hitting a pad. When you connect the BP-1 to the RCL-10 (in the expander mode), dynamics can be varied depending on the intensity by which the pad is hit. By using the RCL-10's noise-gating function, sound will be produced only when the pad is hit, creating a "scratchy" effect.

System integration makes much more exciting sound creations possible—it's what the Micro Studio Series is best at.

BOSS Products that Expand the Creative Power and Potential of the Micro Studio Series.



FS-5L

FOOT SWITCH
LATCH TYPE

FS-5U

FOOT SWITCH
LUNATCH TYPE

The FS-5L (latch type) and FS-5U (lunatch type) footswitches are ideal for controlling Micro Rack Series units as well as rack-mounted units. By using the side-panel jacks, a multiple number of footswitches can be connected horizontally for efficient setting. These jacks allow any cable length to be used, and a Polarity switch lets the FS-5U match any other unit, even with opposite polarity.



FV-50H

VOLUME PEDAL

FV-50L

VOLUME PEDAL

Emphasizing sound quality, the FV-50L or 50H may be selected to match input impedance level. When used for guitars with a volume pedal connected before other effect units, the FV-50H (high impedance) is ideal. High frequency roll-off is minimized, delivering crystal-clear guitar sound. When a volume pedal is connected after the effect pedals, or used for controlling the keyboards, the FV-50L (low impedance) is your best choice. Compact, but designed for heavy duty, these models can take the hardest abuse. 2-in/2 outputs for direct control of stereo keyboards and 2-output effect units.



DI-1 DIRECT BOX

The DI-1 converts the outputs of instruments into line level signals (low-impedance balanced XLR connectors) for mixer inputs to enable high-quality direct recording.



DB-11

MUSIC CONDUCTOR

Four indispensable functions to help you practice your instrument—metronome, tap, tuner and stopwatch—also combined in a compact unit that fits right into your pocket. Available in four fashionable colors of blue, red, white and black.



DR-220A Dr. RHYTHM



DR-220E Dr. RHYTHM

With 11 different digital sounds respectively, the DR-220A and DR-220E each feature acoustic and electronic drum sound sources. Both models are capable of a total of 64 rhythm patterns and can store up to eight songs (each up to 128 measures in length). A chain function allows up to 256 rhythm pattern measures to be played continuously as one song.

DR-220A

Acoustic Drum
Acoustic Snare Drum
Acoustic Tom
Acoustic Hi Tom
Acoustic Hi-Hat
Acoustic Hand Clap
Acoustic Open Hi-Hat
Acoustic Closed Hi-Hat
Acoustic Crash Cymbal
Acoustic Ride Cymbal

DR-220E

Electronic Snare Drum
Electronic Snare Drum
Electronic Low Tom
Electronic Mid Tom
Electronic Hi Tom
Electronic Cow Bell
Electronic Whistle
Electronic Open Hi-Hat
Electronic Closed Hi-Hat
Electronic Crash Cymbal
Electronic Ride Cymbal



DRP-1/1/111 Dr. PAD



DRP Series Dr. PAD offers six different digital percussion sound sources of the rated type. Digitally recorded, the sound is exceptionally realistic, and is fully dynamic controllable. A built-in SWEEP TIME (RACE) control makes it easy to sweep the sound up/down.

DRP-1

1 Snare Drum 1
2 Snare Drum 2
3 Tambourine
4 Hand Clap
5 Gong
6 Triquet

DRP-11

1 Snare Drum 1
2 Snare Drum 2
3 Hi Tom
4 Snare Drum
5 Gong-5
6 Star Chime

DRP-111

1 Smashing Glass
2 Cowbell
3 Tinkling
4 Scratch
5 Guitars
6 Gong-L



MPD-4 MIDI PAD



The MPD-4 activates any MIDI-controlled sound source including rhythm machines, synthesizers and samplers simply by hitting the pad. Dynamic control capability varies the sound volume in accordance with the hitting force. Gate time can also be adjusted by the force of the hit to the pad. And through system integration, the MPD-4 fully expands creative possibilities. A system with a total of four pads can be created by connecting three BP-1 pad controllers. Adding a PS-101 footswitch allows 2-different sounds to be triggered from a single pad (up to 8 different sounds from 4 pads). The MPD-4 exhibits its full potential in professional electronic percussion.

MA-12

MICRO MONITOR AMP



In line with digital trends such as synthesizers and samplers in semi-digital audio equipment including CD players, the MA-12 Micro Monitor Amp is designed for uncoded, flat frequency response. The built-in power amp with 10W output guarantees high quality sound playback. Newly developed speaker units are employed in the MA-12 to combine superior sound quality with durability, ensuring the highest reliability even over an extended period of use. LOW and HIGH BOOST controls tailor the frequency response as desired. Three input jacks on the rear panel make it possible to connect the MA-12 to a CD player and an instrument—for processing, or mixing sound with the MA-12.

TU-12 CHROMATIC TUNER



Tuning becomes fully automated with the TU-12. Adjusting the switch for each note to be tuned is eliminated. Once set to the Chromatic mode, all you have to do is just play your instrument. The TU-12 automatically reads notes and correct pitches, notifying you that perfect pitch has been achieved when the two triangular LEDs light up.

KM-04 MICRO MIXER



An ultra-compact mixer which fits the palm of your hand, the KM-04 provides 4 input channels and 1 output. A peak indicator is provided to help set optimum level settings.

J-5 MULTIPLE JACK



The J-5 provides a single input with 4 outputs for extra convenience when tuning a number of Micro Studio Series units or half with a single footswitch.

J-44 MULTIPLE JACK



The J-44 provides an interface between phone jacks and RCA pin jacks or mini phone jacks. It provides an effective means of connecting stereo audio equipment and instruments.



EX-800

8 CHANNEL STEREO MIXER

The EX-800 condenses all the substantial mixing functions of full-scale 8-channel mixers into a compact, efficiently designed body. These extensive functions include individual channel gain, separate bass/treble controls, effect send/return, pan pot, and channel volume sliders—allowing you to utilize sophisticated mixing techniques. A headphone jack for monitoring the mix is built-in. The EX-800 capably meets all requirements extending from home recording through sub-mixing for a large PA system, and is also suited for live use.



EX-600

6 CHANNEL STEREO MIXER

A compact, multi-function, high-performance 6-channel mixer, the EX-600's gain controls cover a variable range of up to 24 dBm to meet live inputs, thus permitting use as a sub-mixer for a PA or studio mixer. Channel gain, effect send/return, effect volume, pan pot and other useful functions are incorporated. Use of the effect return jacks with stereo capabilities turn the EX-600 into an 8-channel mixer. Separate right and left LED peak indicators help ensure clarity and minimize distortion in the mix. Despite its affordable price, the EX-600 mixer is ideal for covering a wide range of mixing needs.



EX-400

4 CHANNEL MIXER

Incorporating the EX Series' design philosophy that places the emphasis on portability, the EX-400 has four input jacks and one output jack. Even with a compact and lightweight design that's just about half of a magazine, the EX-400 incorporates a useful 3-step input gain selector (MC, HGT and LINT) for compatibility with a wide range of sound sources. As a mixer for instruments, or for mixing computer music or Multi-Track Recording, the EX-400 proves a convenient unit for a diversity of applications. The peak indicators give an at-a-glance indication of optimum mixing levels, helping to cut distortion or noise down to zero. The EX-400 also eliminates any power-source generated hums, guaranteeing superior sound quality and simplified operation.

MICRO STUDIO SERIES

Sound quality and compact dimensions were combined to establish a completely new trend in effects. With 11 current models, the Boss Micro Studio Series lineup continues to expand with new, innovative models.



RRV-10 DIGITAL REVERB



RCE-10 DIGITAL CHORUS ENSEMBLE



RDD-20 DIGITAL DELAY



RSD-10 DIGITAL SAMPLE & HOLD DELAY



RPS-10 DIGITAL PITCH SHIFT/RETARDER



ROD-10 OVER DRIVE/DISTORTION



RBF-10 FLANGER



RPH-10 PHASER



RCL-10 COMPRESSOR/LIMITER



RPQ-10 PREAMP PARAMETRIC EQ



RGE-10 GRAPHIC EQUALIZER



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NEW SCENE Vol. 2

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